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REPORT SHOWS EVIDENCE OF RECOVERY FROM EFFECTS OF ACID RAIN IN NORTHERN AND EASTERN U.S.

Cap and Trade Approach Credited with Reversing Effects of Acid Rain

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EPA Administrator Christie Whitman announced today the release of a report that further documents the success of the Agency's Acid Rain Program in reducing acid rain in sensitive ecosystems of the United States. The Acid Rain Program is the acclaimed market-based cap and trade program on which President Bush's Clear Skies proposal is modeled. Last evening in his State of the Union Address President Bush urged Congress to pass Clear Skies.

"This study confirms that market-based approaches to pollution control work," said Whitman. "This is good news for everybody who cares about clean air. This Acid Rain Program model is the basis for President Bush's Clear Skies plan, which is expected to result in significantly less air pollution and major environmental results."

The most recent data, available in the report**,** confirm a large and widespread decrease in wet sulfate deposition (i.e., acidic precipitation) across broad areas of the Northeastern and Upper Midwestern U.S. The amount of wet sulfate deposited to lakes and streams declined by approximately 40 percent in the 1990s, allowing significant reductions in the number of these systems affected by acid deposition. Regional declines in surface water sulfate can be directly linked to declines in emissions and deposition of sulfur that have occurred since the 1990 Clean Air Act Amendments, signed into law by President George H.W. Bush, which created EPA's Acid Rain Program.

EPA's Acid Rain Program has achieved more emission reductions at a faster pace and lower cost than originally expected. The 1990 law set a goal of reducing annual sulfur dioxide (SO_2) emissions by approximately 50 percent below 1980 levels in 2010 to combat acid rain. In 2001, emissions of SO_2 under the Acid Rain emissions trading program measured 10.6 million tons, already more than six a half million tons below 1980 levels. The reductions to date represent 80% of the progress needed to reach the program's emission reductions goal.

EPA's Office of Research and Development, along with other collaborators, released the report, *Response of Surface Water Chemistry to the Clean Air Act Amendments of 1990*. EPA and its collaborators have conducted extensive monitoring and scientific assessment since 1990 to determine whether control measures have reduced levels of acidity in lakes and streams in five geographic areas of the Upper Midwest and Northeastern United States – those areas most affected by acid rain.

In three of those areas, one-quarter to one-third of lakes and streams previously affected by acid rain are no longer acidic, although they are still highly sensitive to future changes in deposition. In other areas, signs of

recovery are not yet evident, suggesting that further reductions such as those proposed in the Administration's Clear Skies proposal will further assist in ecosystem recovery. Highlights of the report show:

- Eight percent of lakes in the Adirondacks are currently acidic, down from 13 percent in the early 1990s.

- Fewer than one percent of lakes in the Upper Midwest are currently acidic, down from three percent in the early 1980s.

- Nine percent of the stream length in the Northern Appalachian Plateau region is currently acidic, down from 12 percent in the early 1990s.

Acid rain includes both *wet deposition* (rain, snow and fog) and *dry deposition* (gases and particles) of sulfate.

The Clear Skies Act is a simple, straightforward plan that would utilize the proven, effective cap and trade approach to improve air quality across the country. Clear Skies sets strict, mandatory emissions caps for three of the most harmful air pollutants -- sulfur dioxide (SO2), nitrogen oxides (NOx), and mercury and will cut power plant emissions of these pollutants by 70 percent and eliminate 35 million more tons of these pollutants in the next decade than the current Clean Air Act.

The study was conducted by Dr. John L. Stoddard, of EPA's Western Ecology Division at the National Health and Environmental Effects Research Laboratory, with collaborators from researchers at University of Maine, Syracuse University, Oregon State University, U.S. Geological Survey, University of Virginia, Pennsylvania State University, Vermont Department of Environmental Conservation, Adirondack Lake Survey Corporation, and EPA Office of Air and Radiation.

The full report is posted on EPA's Office of Research and Development Web page at www.epa.gov/ord and can be accessed by clicking on "research publications" and then by clicking on "air." A limited number of printed copies will soon be available from EPA's National Service Center for Environmental Publications (NSCEP). To obtain copies, please contact NSCEP at 1-800-490-9198 and reference EPA document number 620/R-03/001.

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